

BICZ, Natalia; JEDRYCHOWSKI, Wieslaw

Significance of capillary resistance in hypertension. Polski  
tygod.lak. 15 no.16:577-580 18 Apr '60.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik:  
prof. dr. Leon Tochowicz.  
(HYPERTENSION physiol.)  
(CAPILLARIES physiol.)

KROL, Wladyslaw; BICZ, Natalia; NOWICKI, Zdzislaw

A case of pulseless disease caused by collagenosis. Pol. tyg.  
lek. 20 no.13:479-480 29 Mr '65

l. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Krakowie  
(Kierownik: prof. dr. Leon Tochowicz) i z Zakladu Histologii  
Akademii Medycznej w Krakowie (Kierownik: prof. dr. Jadwiga  
Ackermann).

BICZ, W.

Anaerobic glycolysis and respiration of the human skin. Acta physiol.  
polon. 3 Suppl. 3:241-243 1952. (CMLL 24:1)

1. Of the Institute of Physiological Chemistry (Head--Prof. B. Skarzynski,  
M.D.) of Krakow Medical Academy. 2. Thiobacillus thioparus and Thio-  
bacillus thiooxydans.

BKZ, W.

✓ 3531. Application of Cartesian diver method to investigation of gas metabolism in warm blooded animal cells. W. Bicz. Acta biol. polon., 1958, 3, 183-199 (Inst. physiol. Chem., Acad. Med., Krakow, Poland).—A new type of magnetic diver is described. The reaction mixture in the bulb is shaken whilst readings are being recorded. The shaking causes a 150% increase in the O<sub>2</sub> uptake by yeast cells suspensions, similar results being obtained with bone marrow cells of mice. A method of filling the divers for experiments at temperatures higher than room temp. has been worked out. (Polish).

A.K. GRECHOWSKI

1-2 Zakładu Chemiczno-Fizjologicznego A. M. w Krakowie  
Kierownik prof. Dr. B. Skarzynski.  
(metabolizm, tissue,  
investigation of metab. in warm-blooded animals  
with Cartesian diver (Pol))

KOJ, A., ZGLICZYNKI, J.M., BIGZ, W.

Effect of erythrocytes on respiration of human leukocytes. Acta  
biochim. polon. 5 no.2:177-188 1958.

1. Z Zakladu Chemii Fizjologicznej A.M. w Krakowie. Kierownik  
Zakladu: Prof. dr B. Skarzynski.

(ERYTHROCYTES,

eff. of erythrocytes concentration of leukocytes.  
oxygen uptake (Pol))

(LEUKOCYTES, metab.

oxygen uptake, relation to erythrocyte concentration (Pol))

BICZ, W.; CZEKALINSKI, L.; OSTROWSKI, K.

An ultramicrocolorimeter based on the Zeiss (Schnellphotometer II)  
or the Russian (MF-2) microphotometer model. Bul Ac Pol biol 7  
no.12:495-499 '59. (EEAI 9:12)

1. Laboratory of Experimental Pathology, Polish Academy of Sciences.  
Presented by L.Paszkevicz.

(RUSSIA--MICROPHOTOMETER)  
(GERMANY--MICROPHOTOMETER)  
(COLORIMETERS)

BICZ,W.; KOJ,A.; ZGLICZYNKI,J.M.

The Cartesian diver method in investigation of metabolism of the  
cells. Postepy biochem 6 no.2:213-237 '60.  
(TISSUE METABOLISM)

POLAND

MICZ, J. and MICZ, W., Experimental Pathology Research Office (Zaklad Patologii Doswiadczonej), PAN [Polska Akademia Nauk, Polish Academy of Sciences]

"Oxygen Metabolism of Guinea Pig Liver and Kidney in Histamine Shock."

Warsaw, Bulletin de L'Academie Polonaise des Sciences, Serie des Sciences Biologiques, Vol 10, No 9, 62, pp 389-391.

Abstract: [English article, authors' Russian summary modified] Investigations of the authors revealed no significant differences in the endogenous oxygen metabolism of the liver and kidneys derived from control guinea pigs, from those stimulated with electric current, after histamine administration, and both. Addition of glucose to the incubation medium produced no change in oxygen requirements. These *in vitro* experiments, therefore, do not explain the protective action of electric current in histamine shock observed by other authors. Seven references (2 Polish, 5 English).

1/1

BICZ, B.; BICZ, W.

Oxygen metabolism of guinea pig liver and kidney in histamine shock. Bul Ac Pol biol 10 no.9:389-391 '62.

1. Institute of Experimental Pathology, Polish Academy of Sciences, Warsaw. Presented by L. Paszkiewicz.

BICZ,W.; BICZOWA, Barbara

Glucose, lactate and pyruvate in the blood of guinea pigs  
after electrical stimulation of the brain. Acta biochim.  
Pol. 11 no.4:445-449 '64.

1. Biochemical Laboratory, Department of Experimental Patho-  
logy, Polish Academy of Sciences, Warszawa.

BANKOWSKI, Zbigniew; BICZ, Włodzimierz; BICZOWA, Barbara.

Glycogen in the liver and glucose in the blood in radiation sickness in the rat. Pat. Pol. 16 no. 3:291-295 Jl-S '65.

1. z Pracowni Patomorfologii (Kierownik Pracowni: doc. dr. Z. Bankowski); z Pracowni Biochemii (Kierownik: doc. dr. med. W. Bicz) i Zaklad Patologii Doswiadczonej Polskiej Akademii Nauk w Warszawie (Kierownik: prof. dr. med. Z. Ruszczewski).

## POLAND

BICZ-CIENCIALOWA, Maria, Radiology Clinic (Klinika Radio-logiczna), AM [Akademia Medyczna, Medical Academy] in Krakow (Director: Prof. Dr. S. JANUSZKIEWICZ)

"Osmotic Pressure of White Blood Cells of Patients With Malignant Tumors Treated With X Rays."

Warsaw, Postepy Higieny i Medycyny Doswiadczonej, Vol 17, No 1-2, 63, pp 223-228.

Abstract: Author gives the details and results in an investigation of the effect of x ray treatment on the osmotic pressure and white blood count in patients with malignant tumors, with healthy individuals used as control. She found that there is a marked drop in osmotic pressure preceding the drop in the white cell count, and suggests determinations of the osmotic pressure of the white blood cells as an effective control of the success of the x ray treatment. All 15 references are Western.

1/1

POLAND

PAJAKOWA, Edwarda and BICZ-CIENCIALOWA, Maria, Radiology Clinic (Klinika Radiologiczna), AM [Akademia Medyczna, Medical Academy] in Krakow (Director: Prof. Dr. S. JANUSZ-KIEWICZ)

"Blood Clot Retraction in Patients Treated With X Rays for Malignancies."

Warsaw, Postepy Higieny i Medycyny Doswiadczonej, Vol 17, No 1-2, 63, pp 235-243.

Abstract: Authors give details of study, which revealed disturbances in the blood clot retraction in x ray treatment. The disturbances, absent before the treatment and disappearing on its termination, could not be correlated with any other of the blood changes. They suggest a further study of this phenomenon with greater selectivity of the patients. Of the 11 references, 7 are Polish and two each English and West-German.

1/1

- END -

1588, 2473  
CSO: 2000-N

BICZÓ, F.

"Report on the operations of the Szeged Section of the Hungarian Biological Association between October 1955 and January 1957." p. 72.

BIOLOGIAI KÖZLEMÉNYEK. (Magyar Biológiai Társaság. Általános Biológiai Szakosztály). Budapest, Hungary, Vol. 6, No. 1, 1958.

Monthly list of East European Accessions (EEAJ), LC, Vol. 2, No. 8,  
August 1959.  
Uncle.

L 34716-66 EMP(j) RM

ACC NR: AT6025195

SOURCE CODE: HU/2502/65/046/003/0195/0203

AUTHOR: Biczo, Geza—Bitso, G. (Doctor); Ladik, Janos—Ladik, Y. (Doctor); Messmer,  
Andras (Doctor)ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences, BudapestTITLE: Investigation of the electronic structure of 1-benzene-azo-N-phenyl-2-naphthylamine chelate. Part 2SOURCE: Academia scientiarum hungaricae. Acta chemica, v. 46, no. 3, 1965, 195-203

TOPIC TAGS: chelate compound, organic azo compound, chemical bonding

ABSTRACT: Part 1 was published Ibid., v. 38, 1963, p. 393. The potential function of the N-H...N hydrogen bond in the title compound and of the O-H...N hydrogen bond in 1-benzene-azo-2-naphthol was determined for various N-N and N-O distances. The chelate system was found to be homogeneous. The values obtained were presented and discussed. The authors thank Miss A. Jeszenak for performing the numerical calculations.  
Orig. art. has: 4 figures, 10 formulas, and 2 tables. /Orig. art. in Eng/

JPRS: 34,1657

SUB CODE: 07 / SUBM DATE: 04Feb65 / ORIG REF: 002 / OTH REF: 005

Card 1/1 YMS

0916 0560

BICZO, G.; LADIK, J.; TUDOS, F.; BEREZSNICH, T.A.

Calculation of some atomic localization energies of various polycyclic hydrocarbons. Acta phys Hung 16 no.2:173-180 '63.

l. Central Research Institute for Chemistry of the Hungarian Academy of Sciences, Budapest.

BICZO, Geza; LADIK, Janos; TUDOS, Ferenc; BEREZSNICH, Tamara

Calculating the atomic localization energy of polycondensed hydrocarbons. Magy kem folyoir 70 no. 1: 17-19 Ja '64.

1. Magyar Tudomanyos Akademia Kozponti Kemial Kutato Intezete, Budapest.

LADIK, Janos; BICZO, Geza

Energy band calculations for periodic DNA models on the basis  
of the Huckel approximation. Magy kem folyoir '71 no.1:31-39  
Ja '65.

1. Central Research Institute of Chemistry of the Hungarian  
Academy of Sciences, Budapest.

L 39546-66 GD/RM

ACC NR: AP6008594

SOURCE CODE: HU/0005/65/071/001/0031/0039

AUTHOR: Ladik, Janos; Biczo, Gesa

ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences,  
Budapest (Magyar Tudomanyos Akademia Kozponti Kemial Kutato Intezete)

TITLE: Energy band calculations for periodic DNA models in the Huckel approximation

SOURCE: Magyar kemiai folyoirat, v. 71, no. 1, 1965, 31-39

TOPIC TAGS: DNA, energy band structure

ABSTRACT: The energy band structures of different periodic models of DNA were calculated by means of the Huckel approximation. The characteristic features of the results were compared with those previously obtained for homopolymucleotids and for the most simple heteropolymucleotids. The widths of the energy bands make possible a small conduction in DNA. For the forbidden band width between the highest filled band and the lowest non-filled singlet band the value of 3.46 eV. was obtained in the case of the most somplicated model systems, which do not differ significantly from real DNA. The authors thank Prof. P. O. Lowdin and Prof. B. Pullman for many valuable exchanges and the suitable power guarantee. Further

Cord 1/2

L 39546-66  
ACC NR: AP6008594

thanks is extended to Doctor T. C. Chen and Mr. T. S. Shao for solving of the 40th order special Hermite complex matrix equations in the research program and the calculations done at the IBM Data Systems Division Development Laboratory (New York) on the IBM 7030 (Stretch) Computer. Thanks is also given to Janos Szlezsan and Gyurus Belane for the solving of the 20th order Hermite complex matrix equations on the Elliott 803A Computer. Orig. art. has: 3 tables. JPRS

SUB CODE: 07 / SUBM DATE: 28May64 / ORIG REF: 001 / OTH REF: 008  
SOV REF: 002

Card 2/2 11b

I 43961-66 SWI(1)/EWP(1)/I/EWP(1)/ETI LJP(c) JD/HW/AM SOURCE CODE: HU/0005/66/000/001/0022/0026  
ACC NR: AP6032108

AUTHOR: Ladik, Janos; Biczo, Geza

ORG: Central Chemical Research Institute, MTA, Budapest (MTA Kozponti Kemial Kutato Intezete)

TITLE: Study of the electron structure of solids having catalytic action. I. Change of the energy band structure of infinite nickel crystals

SOURCE: Magyar kemial folyoirat, no. 1, 1966, 22-26

TOPIC TAGS: electron structure, energy band structure

ABSTRACT: Using the tight binding approximation in its interpolation form, suggested by Slater and Koster, the energy bands of Ni in the whole first Brillouin zone were calculated at 0°K and 1373°K. In the latter case the effect of the extension of the crystal by the increase in temperature was taken into consideration, but the interaction of the electrons with the phonons was neglected. The energy integrals at 1373°K were estimated from the appropriate energy integrals at 0°K and from the overlap integrals at 0°K and at 1373°K, respectively. According to the results, the widths of the 4s and of the common 3d band decrease considerably with an increase in temperature. Therefore in any theoretical interpretation of the catalytic properties of the transition metals it is necessary to start with the band structures computed for the temperature of the catalytic reaction. Orig. art. has: 4 tables and 9 formulas. JPRS:34,805/

Card 1/1 SUB CODE: 20 / SUBM DATE: 31May65 / OTH REF: 014

0919 1220

ACC NR: A 6034717

SOURCE CODE: HU/0005/65/071/009/0388/0392  
23  
24  
B  
AUTHOR: Biczo, Geza, Ladik, Janos, Messmer, Andras; Hungarian Academy of Sciences, Central Research Institute of Chemistry (Magyar Tudomanyos Akademia, Kozponti Kemial Kutato Intezet), Budapest.

TITLE: Study of the electronic structure of 1-benzene-azo-n-phenyl-2-naphthyl-amine chelate II. Approximate calculation of the potential function of the n-H...n hydrogen bond

SOURCE: Magyar kemial folyoirat, v. 71, no. 9, 1965, 388-392

TOPIC TAGS: hydrogen bonding, organic azo compound, chelate compound

ABSTRACT: The potential functions of the N-H...N hydrogen bond of 1-benzene-azo-N-phenyl-2-naphthylamine and of the O-H...N hydrogen bond of 1-benzene-azo-2-naphthol have been calculated by using the semiempirical method of Lippincott and Schroeder. The calculations were carried out for different N-N and O-N distances. According to the results, in the chelate system containing the N-H...N hydrogen bond, the potential function has only one single minimum if the N-N distance is smaller than 2.76 Å. Since such a large N-N distance seems to be improbable, this result is in agreement with the previous experimental results which indicate that this system is homogeneous. The results obtained for the second system indicate that a potential with double minima can be expected only if the O-H distance is greater than 2.78 Å.  
Card 1/2

L 00707-67 EWP(j)/EWP(t)/ETI IJP(c) JD/HW/RM  
ACC NR: AT6035470 SOURCE CODE: HU/2502/66/047/003/0263/0271

AUTHOR: Ladik, Janos—Ladik, Ya. (Doctor: Budapest); Biczo, Geza—Bitso, G. (Budapest)  
ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences, Budapest  
TITLE: Investigation of the electronic structure of catalytically active solids  
SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 47, no. 3, 1966, 263-271  
TOPIC TAGS: solid state, energy band structure, nickel, electron energy level, catalysis, temperature dependence

ABSTRACT: The purpose of this paper is to calculate the energy band structure of an infinite nickel crystal at 0°K and at 1373°K., to investigate the effect of temperature increase on the band structure. For the calculations of the energy band structure, the tight binding approximation was used, taking into account the 4s and the five 3rd states of nickel. The widths of the 4s band and of the common 3rd band decreased significantly with increase in temperature. The importance of the findings obtained in this study for catalytic mechanisms was discussed. The authors thank Academician Dr. G. Schay and Dr. F. Nagy, Corresponding Member of the Hungarian Academy of Sciences, for calling their attention to the problem, and for their inspiring interest during this work. They also thank Mr. F. Beleznay for many stimulating discussions and for calling their attention to important data in the literature, Miss J. Redly for solving the matrix eigenvalue problems on the Ural II computer of the State Institute of Statistics, and Miss A. Jeszenak for performing the tedious desk calculations. Orig. art. has: 9 formulas and 4 tables. [Orig. art. in Eng.]  
[JPRS: 36,464]

SUB CODE: 07, 20 / SUBM DATE: 31May65 / OTH REF: 016

Card 1/1 vlr

0921 2180

BICZO, Ivan, okleveles mernok, tervező mernok

Treatment of sewage in dairy plants. Vizugyi kozl no.2:196-  
217 '61.

1. Elelmezesipari Tervező Intézet.

MIHALICS, Imre, okleveles banyamernok; TOTH, Sandor, okleveles banyamernok;  
BICZOK, Erno, gepesztechnikus

Development of Hungary's mining as reflected in projecting. I.  
Hard coal mining. Bany lap 95 no.8/9:510-519 Ag-S '62.

1. Banyaszati Tervező Intézet, Budapest.

BICZOK, F.

Testacea in the rhizosphere, In German. p. 385. Vol 2, 1952. (published in 1954)  
A MAGYAR TUDOMANYEGYETEMEK BIOLOGIAI INTÉZETÉNK MUNKÁIVE. SZTOMI KÖSZ. Budapest,  
Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

BICZOK, F.

BICZOK, F. Contributions to the protozoa of ~~of~~ the rhizosphere of wheat. In English. p. 115

Vol. 2, no. 1/3 1956  
Acta Zoologica  
SCIENCE  
Budapest, Hungary

So: East European Accession, Vol. 6, No. 3, March 1957

BICZOK, F.

Morphologic and physiological investigation of a new species of Pyxidium.  
In German. p. 155.  
(ACTA BIOLOGICA. Vol. 2, no. 1/4, Dec. 1956, Hungary)

SO: Monthly List of East European Accessions (EEL) DC. Vol. 6, no. 12, Dec. 1957.  
Uncl.

BICZOK, F.

The role of contractile proteins in osmoregulation. p. 183

▲ MAGYAR TUDOMANYOS AKADEMIA V. OXZTALAY BOIOGIAI CSOPORTJANAK KOSIEMENEI.  
Budapest, Hungary. Vol. 3, no. 2, 1959

Monthly list of East European Accessions (EEAI). IC. Vol. 9, no. 1, Jan.,  
1960. Unclassified.

BICZOK, Ferenc

State of research on freshwater protozoans in Hungary from  
1945 up to the present. Biol kozl 12 no.1:75-80 '64.

Hungarian literature on protozoology from 1945 up to the present.  
Ibid.:81-85

1. Institute of General Zoology and Biology, Szeged.

BICZOK, I.

"You Must Build Cheaper, Better, Faster!" p. 3, (MAGYAR EPITOIPAR, Vol. 2, no. 1,  
Jan. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

BICZOK, I.

Hungarian Technical Abst.  
Vol. 6 No. 1  
1954

666.07.03.97 : 626.193.162.26

93. The sulphate problem at present — A szulfát-károltás mai állása — I. Biczok, (Hungarian Building Industry — Magyar Építőipar — Vol. 2, 1953, No. 2, pp. 34-40, 6 figs., 1 tab.)

The protection of concrete is a very important problem in Hungary since ground waters often contain 10 to 20,000 mg of sulphates per liter. The extent of corrosion depends not only on the medium in which the block stands but also on its dimensions, therefore the results of laboratory tests cannot always be applied to concrete foundations. Corrosion is always less in still water than in flowing water. While damages occurring to concrete conduits subjected to oxidation by air are considerable, at the same time the concrete foundation of a building located at the same spot remains unimpaired. Several hundreds of building foundations standing in ground water with a high sulphate content have been tested. The stipulations for protection against sulphate must be modified on the basis of experiences as well as on the latest results of laboratory tests. Until now passive methods of protection have been applied (higher rates of cement, compact concrete, etc.) however, active processes may be used e. g. by artificially reducing the sulphate contents of ground water by the inoculation of sulphate reducing bacteria.

EICZOK, I.

"Geoelectric exploration of surfaces in engineering practice." Melyepitestudomanyi Szemle, Budapest, Vol. 4, No. 5, May 1954, p. 267.

SO: Eastern European Accessions List, Vol. 3, o. 11, Nov. 1954, L.C.

LIBSEN, I.

Protection against corrosion in the Soviet Union. p. 173.  
NEVÉBŐTTSÜDŐANYI SZE'LE. Budapest. Vol. 6, no. 4, Apr. 1956.

SOURCE: East European Acquisitions List (EEAL), Library of Congress  
Vol. 5, No. 12, December 1956

BICZOK, I.

Experiences acquired in the field of surface exploration by methods applied in Hungary. p. 11 Vol. 19, No. 1/3, 1956. KOZLEMENYEI. Budapest, Hungary.

SOURCE: East European List, (EEAL) Library of Congress Vol. 6, No. 1 January 1956.

VARDAY, Gyorgy, dr.; BICZOK, Imre; OCSVAR, Rezso; LANTOS, Zoltan; SZIMELY, Karoly; BERENyi, Akos, dr.; FEHER, Gyula; GALLI, Laszlo; BAKOS, Laszlo; CZIGLINA, Vilmos; GABOS, Gyorgy; SZILAGYI, Gyula; RONAI, Andras; KOVACS, Gyorgy; BACHMANN, Alfred; STEGMULLER, Jozsef; RETHATI, Laszlo; NAGY, Zoltan.

Hydrological questions of the construction industry in Hungary.  
Hidrologiai kozlony 36 no.3:169-170 Je'56.

1. "Hidrologiai Kozlony" szerkeszto bizottsagi tagja (for Galli).
2. "Hidrologiai Kozlony" felelos szerkesztoje (for Kovacs).

HUNGARY/Chemical Technology - Chemical Products and Their Application, Part 2. - Ceramics, Glass, Binders, Concretes. - Binders, Concretes and Other Silicate Building Materials.

H-13d

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 47622  
Author : Imre Biczok  
Inst : -  
Title : Methods of Concrete Corrosion Determination.  
Orig Pub : Epitoanyag, 1957, 9, No 4, 185-193

Abstract : The method of the French engineer is interesting among other rapid methods. It consists in the action of an aggressive medium on U-shaped samples 3 mm thick placed into an installation. When the sample is destroyed, the electric circuit is disconnected, which is automatically recorded by a counter. Experiments with concrete corrosion carried out under natural conditions

Card 1/2

HUNGARY/Chemical Technology - Chemical Products and  
Their Application, Part 2. - Ceramics, Glass,  
Binders, Concretes. - Binders, Concretes and  
Other Silicate Building Materials.

H-13d

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 47622

(in USA) showed that if concrete was buried in the soil for a long time, the degree of its destruction depends much more on the proportioning of the concrete than on the soil character. The experimental results show that the air-entrained concrete is the most stable under chemical and climatic action!

Card 2/2

Biczok, I.

Designing substructures. p. 142.

EPITESUGYI SZEMLE. Budapest, Hungary. No. 5, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

PHASE I BOOK EXPLOITATION

HUN/5161

Biczók, Imre

Betonkorrosion - Betonschutz (Corrosion of Concrete - Protection of Concrete) Trans. from the Hungarian. Budapest, Verlag der Ungarischen Akademie der Wissenschaften, 1960. 396 p. No. of copies printed not given.

Scientific Reviewers: E. Bereczky, Diploma Engineer, Professor, Doctor, and D. Nagy, Diploma Engineer of Chemistry; Translator: Blasovszky, Diploma Engineer; Tech. Ed.: Antal Fülöp.

PURPOSE: This book is intended for persons concerned with concrete and concrete structures.

COVERAGE: The book gives detailed information on protective measures against the corrosion of concrete. Among the principal topics treated are the following: cements and their resistance to corrosion, admixtures, mixing water, ground-water problems, various aspects of corrosion of concrete, and passive and active protective

Card 1/15

## Corrosion (Cont.)

HUN/5161

measures against corrosion. The book contains contributions to the field by Western, Soviet, and Central European specialists. The book contains many photographs, diagrams, and tables. No personalities are mentioned. There are 276 references: 41 Soviet, 101 German, 65 English, 47 Hungarian, 14 French, 3 Czech, 2 Italian, and 1 Rumanian.

## TABLE OF CONTENTS:

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~~Card 2/15~~

BICZOK, Imre, Alpar-ermes

Detection of harmful concrete corrosion. Magy ep ipar 12  
12 no.5:193-196 '63.

86-20K-3

2953. Bicsak, J., Experiences gained with subsurface exploration methods (in Hungarian), 11-25.

Paper describes in detail experiments with sounding, geophysical methods—in this field, the reconnaissance of sand and weathered rock strata under the bottom of the Danube bed is of especial interest; undisturbed sampling; field use of radioactive isotopes; documentation of subsurface data.

A. Kozai, Hungary

BANKOWSKI, Zbigniew; BICZOWA, Barbara; GORSKI, Michal; KRUS, Stefan;  
LEWICKI, Zdzislaw; RUSZCZEWSKI, Zygmunt; STARZYNSKI, Stefan

Behavior of glycogen, fats and nucleic acids in the rat liver in acute  
radiation sickness. Pat. pol. 13 no.3:325-336 '62.

l. Z Pracowni Patomorfologii Zakladu Patologii Doswiadczałnej PAN w  
Warszawie. Kierownik: prof. dr med. L. Paszkiewicz. Kierownik pracowni:  
doc. dr med. Z. Ruszczewski.

(RADIATION INJURY EXPERIMENTAL) (LIVER GLYCOGEN)  
(LIVER) (NUCLEIC ACIDS) (LIPID METABOLISM)

BICZ,W.; BICZOWA, Barbara

Glucose, lactate and pyruvate in the blood of guinea pigs  
after electrical stimulation of the brain. Acta biochim.  
Pol. 11 no.4:445-449 '64.

1. Biochemical Laboratory, Department of Experimental Patho-  
logy, Polish Academy of Sciences, Warszawa.

RICH '61, 1961, 1961, 1961, 1961, 1961.

Mention of the grade of expertises: results of the physical test. Vol. typ. lek. 30 ro.7:2/3-23 15 F165.

I. Z I Kliniki Chorob Nervoznych dr. dent. J. Kowalewski w Brzegu (Kierownik: prof. dr. Leon Tucholski).

BANKOWSKI, Zbigniew; BICZ, Włodzimierz; BICZOWA, Barbara.

Glycogen in the liver and glucose in the blood in tradiation sickness in the rat. Pat. Pol. 16 no.3:291-295 Jl-S ' 65.

l. z Pracowni Patomorfologii (Kierownik Pracowni: doc. dr. Z. Bankowski); z Pracowni Biochemii (Kierownik: doc. dr. med. W. Bicz) i Zaklad Patologii Doswiadczonej Polskiej Akademii Nauk w Warszawie (Kierownik: prof. dr. med. Z. Ruszczewski).

POLAND / Chemical Technology. Processing of Solid Fossile Fuels. H-22

Abs Jour: Ref Zhur-Khimiya, No 23 ,1958, 79016.

Author : Biczysko, J.

Inst : Not given.

Title : The Gasification of Coals Under Pressure.

Orig Pub: Energ. przemysl. Gospod. cieplna, 1957, 5, No 6,  
251-254.

Abstract: The theoretical and technological fundamentals of the gasification process of brown coals and coals under pressure by Lurgi's method were examined. Data is reported concerning the units operating according to that method in various parts of the country and particularly in regard to the set-up in Dorsten (Feder. German Rep.) with 6 gas generators having a diameter of 2.6

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POLAND / Chemical Technology. Processing of Solid Fossil Fuels. H-22

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 79016.

Abstract: meters, an efficiency of 12,000 HM<sup>3</sup>/hour each; this station is processing every 24 hours ~1,000 tons of coal which has an ash content up to 25% and a lump size from 6-30 millimeters, the gas output is up to 1.5 millions HM<sup>3</sup> of the gas with a calorific value of 3910 kilocalories/HM<sup>3</sup> (this gas is then mixed with a natural one to bring up its calorific value up to 4600 kilocalories/HM<sup>3</sup>. Conclusions are drawn concerning the need for setting up a method for the gasification of brown coals and coals in PNR /Polish People's Republic/.

Card 2/2

BICZYSKO, J.

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BICZYSKO, Romuald

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1. Z II Kliniki Polozniczo-Ginekologicznej AM w Poznaniu  
Kierownik Kliniki: doc. dr med. E. Howorka.  
(OVARIAN NEOPLASMS) (THECA CELL TUMOR)  
(UTERINE NEOPLASMS) (HYSTERECTOMY)

KORNACKI, Zygmunt; BICZYSKO, Romuald

Creatinine contents in the amniotic fluid in cases of fetal distress. Ginek. Pol. 36 no. 12:1327-1231 D ' 65

l. Z II Kliniki Poloznictwa i Chorob Kobiecych AM w Poznaniu (Kierownik: prof. dr. E. Howorka).

BICZYSKO, Wieslawa

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nauk wydz. lek. 26:33-60 '63.

(FETUS) (LIVER CYTOLOGY) (MITOCHONDRIA)  
(MICROSCOPY, ELECTRON)

GRONIOWSKI, Janusz; BICZYSKOWA, Wieslawa

Electron-microscopic studies of the lining membrane of fetal lungs. Pat. Pol. 16 no.2:119-128 Ap-Je '65.

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B/D

D.Y.

✓ Effect of high molecular weight products of pyrolysis of petroleum on the animal organism. A. G. Bogdat'eva and P. Ya. Bid (Sci. Research Inst. Rentgenol., Radiol. and Oncol., Ministry Health Azerbaijan S.S.R.). *Gigiena i Sanit.* 1955, No. 7, 21-5; cf. C.A. 48, 95355. — Products of pyrolysis of Baku petroleum deposited on rabbit skin produce toxic effects (photos shown) which increase with the mol. wt. of the material (i.e., b.p.). The effect is a chronic local inflammation.  $C_{10}H_8$  in addn. shows generally toxic action with degeneration in parenchymatous organs, after prolonged application. The high-b.p. materials cause dystrophic changes in internal organs, particularly the liver. No cancerogenic action was observed with the specimens used.

G. M. Kosolapoff

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AGRICULTURE

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KALMYKOVA, Zh.I.; KAS'YANENKO, S.I.; IYEVLEVA, L.A.; ROYEGA,  
Zh.M.; Prinimali uchastiye: KHMELIK, A.I.; VOSKANYAN, A.O.;  
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POPOVIN, M.G., inzh.

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"APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205220016-3

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Selecting optimum smoking conditions for sprat and Baltic herring  
in the production of "sprat" type preserves by the use of live  
steam. Trudy BaltNIRO no. 7:171-184 '61. (MIRA 15:2)  
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APPROVED FOR RELEASE: 06/08/2000

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ZHUKOV, A.I.; KHIL'KO, M.M.; SHKLYAR, N.S.; KAZANTSEV, Ye.I. Prinimali  
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PARKHOMENKO, D.M., inzh.; BULI, V.G., inzh.; BIDENKO, R.V., inzh.;  
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Firing open-hearth furnaces with a mixture of cold coke and  
natural gases. Stal' 21 no.12:1068-1070 D '61.

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KOVALENKO, V.I., kand.khimicheskikh nauk; LEMISHCHENKO, K.S., dotsent;  
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Laboratory towers and packing for fractional distillation of  
mixtures of liquids. Sbor. nauch. trud. KGRI no.7:322-330 '59.  
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USSR/Electricity - Electric Drive  
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Jan 52

"Operating Experience With the Electric  
Drives of Rolling Mills at the Magnito-  
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G. M. Bider, Engr, Magnitogorsk

"Elektrichestvo" No 1, pp 59-61

Enumerates some design and production defects  
of equipment for elec drive of rolling mills  
and outlines methods for eliminating them.  
Some data is given on improvements made at the  
Magnitogorsk Combine.

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EXCERPTA MEDICA Sec.9 Vol.11/7 Surgery July 1957  
BIDER V. M.

3776. BIDER V. M. Odessa. "On a new method of surgical treatment  
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Prof. Ryzich's method of treatment of acute paraproctitis, as published in Sovetsk. Med. 1955, 6, and consisting of the incision of the sphincter ani, is strongly criticized. The results of treatment depend on early opening of an abscess, postoperative care and administration of antibiotics and sedatives. Zakryś - Lublin

BUDKE, V.M., dotsent

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in outpatient practice. *Zhirurgija* 33 no.3:84-86 Mr '57. (MLRA 10:6)

1. Iz poliklinicheskogo otdeleniya klinicheskoy bol'niцы Voroshilov-  
skogo rayona Odessy (i.o. glavnogo vracha Ya.Dubovskiy)

(LEG, ulcers

trophic, ther., Shostakovsky balsam (Rus))

(BALSAM, ther. use

Shostakovsky balsam in trophic leg ulcers (Rus))

BIDIN, Darko

Galileo Galilei. Zemlja i svemir ? no.2:26-28 '64.

PINNIK, S. I.; FIDERNAN, V. L.

Technology

Prochnost' v mashinostroenii. Sbornik statei (Sturdiness in machine building).  
Pod red. S.D. Ponomareva. Moskva, Mashgiz, 1951. 330 p.

9. Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

PONOMAREV, S.D. ; BIDERMAN, V.I. ; LIKHAREV, K.K. ;

Machinery - Construction

"Principles of modern methods of calculating durability of machine construction."  
Reviewed by Prof. A. A. Polov. Vest. mash. 31 no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

BIDERMAN, V.L.

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PHASE I

## Treasure Island Bibliographic Report

Call No.: AF5E002

BOOK

Authors: PONOMAREV, S.D.; BIDERMAN, V.L.; LIKHAREV, K.K.; MAKUSHIN, V.M.;  
MALININ, N.N.; FEODOS'YEV, V.I.  
Full Title: FUNDAMENTALS OF MODERN METHODS FOR STRENGTH COMPUTATIONS IN MACHINE-BUILDING. (Computations of dynamic loads. Stability. Creep).  
Transliterated Title: Osnovy sovremennykh metodov rascheta na prochnost' v mashinostroyenii. (Raschety pri dinamicheskoy nagruzke, Ustoychivost'. Polzuchest').

## Publishing Data

Originating Agency: None.  
Publishing House: (MASHGIZ), State Scientific and Technical Publishing House of Literature on Machine Building.

No. pp.: 862

No. copies: 10,000

Technical Editor: None.

Date: 1952

## Editorial Staff

Editor: Prof. Ponomarev, O.D.,  
Dr. Eng. Sci.

Appraiser: None.

Editor-in-Chief: None.

Others: Golovin, S. Ya., Eng., editor of literature on heavy machine building.

## Text Data

Coverage: The three parts of this book discuss: 1) the strength computation of various machine elements under dynamic loads, 2) the stability computation of machine elements, 3) the creep computation of machine parts working at high temperatures. The first section describes the computation of the strength of moving machine elements, particularly 1/2

BIDERMAN, V.L.

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Call No.: AF52002

Full Title: FUNDAMENTALS OF MODERN METHODS FOR STRENGTH COMPUTATIONS IN MACHINE-BUILDING. (Computations of dynamic loads. Stability. Creep).

Text data

Coverage: discs and wheels; investigates questions of elastic vibration in connection with various practical problems (harmonic, non-harmonic, quasi-harmonic, non-linear and other types of vibration); and analyzes the strength of elements under variable loads. The second part concerns methods of computing the stability of rods and springs (twisted and compressed-coiled), or rings and flat shapes of curved thin strips, of the elements of thin-wall construction and non-symmetric profiles, of thin rectangular plates, and of rotating casings. The third section analyzes the questions of creep and relaxation of tension, permanent deformation, and aging of parts subjected to the action of high temperatures.

Purpose: A textbook for design engineers in the field of machine building and students of the technical colleges and also for scientific workers.

Facilities: None.

No. of Russian and Slavic References: 382 of total 409.

Available: Library of Congress.

ACHMERKAN, Naum Samuilovich, 1872-, doktor tekhnicheskikh nauk, professor, redaktor; BELYAYEV, V.N., dotsent, kandidat tekhnicheskikh nauk; BIDERMAN, V.L., kandidat tekhnicheskikh nauk; BOROVICH, L.S., kandidat tekhnicheskikh nauk; GASHINSKIY, A.G., inzhener; GORODETSKIY, N.Ye., professor, doktor tekhnicheskikh nauk; IVANOV, B.A., professor, doktor tekhnicheskikh nauk; KOLMIYTEEV, A.A., dotsent, kandidat tekhnicheskikh nauk; KRAGEL'SKIY, I.V., professor, doktor tekhnicheskikh nauk; PETROSEVICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotsent; PONOMAREV, S.D., professor, doktor tekhnicheskikh nauk; PORTUGALOVA, A.A., kandidat tekhnicheskikh nauk; PRONIN, B.A., kandidat tekhnicheskikh nauk; RESHETOV, D.N., professor, doktor tekhnicheskikh nauk; SAVERIN, M.A., professor, doktor tekhnicheskikh nauk; SAVERIN, N.A., kandidat tekhnicheskikh nauk; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., professor, doktor tekhnicheskikh nauk; STOLBIN, G.B., dotsent, kandidat tekhnicheskikh nauk; UMNOV, V.A., inzhener; CHEREBYAK, B.Z., kandidat tekhnicheskikh nauk; SHCHEDROV, V.S., dotsent, kandidat tekhnicheskikh nauk.

[Machine parts; collection of materials on calculation and design in two volumes; vol.1] Detali mashin; sbornik materialov po raschetu i konstruirovaniyu. Izd.2., ispr.i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1953- .

(MLRA 6:11)

(Machinery--Design)

*Библиография*

ACHERKAN, N.S., doktor tekhnicheskikh nauk, professor, redaktor;  
BELYAYEV, V.N., kandidat tekhnicheskikh nauk, dotsent;  
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STOLEBIN, G.B., kandidat tekhnicheskikh nauk, dotsent; UMNOV,  
V.A., inzhener; CHERNYAK, B.Z., kandidat tekhnicheskikh nauk;  
SHCHEDROV, V.S., kandidat tekhnicheskikh nauk, dotsent.

[Machine parts; collection of materials on calculation and  
design in two volumes] Detali mashin; sbornik materialov po  
raschetu i konstruirovaniyu v dvukh knigakh. Izd.2. Moskva,  
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Vol. 2. 1953. 560 p.

(MLRA 6:12)

(Machinery--Design)

1100-1000-1000

ANDREYEV, L.Ye., kandidat tekhnicheskikh nauk; BIDERMAN, V.L., kandidat tekhnicheskikh nauk; BOYARSHINOV, S.V., kandidat tekhnicheskikh nauk; VOL'MIR, A.S., doktor tekhnicheskikh nauk; DIMENTBERG, F.M. kandidat tekhnicheskikh nauk; ZASELATELEV, S.M., inzhener; KINASOSHVILI, R.S., doktor tekhnicheskikh nauk, professor; KOVALENKO, A.D.; MAKUSHIN, V.M., kandidat tekhnicheskikh nauk; MALININ, N.N., kandidat tekhnicheskikh nauk; PONOMAREV, S.D., doktor tekhnicheskikh nauk; PRIGOROVSKIY, N.I., doktor tekhnicheskikh nauk; TETEL'BAUM, I.M., kandidat tekhnicheskikh nauk; UMANSKIY, A.A., doktor tekhnicheskikh nauk, professor; VODOS'YEV, V.I., doktor tekhnicheskikh nauk; SERENSEN, S.V., redaktor; TRAPEZIN, I.I., kandidat tekhnicheskikh nauk, redaktor; KARGANOV, V.G., inzhener, redaktor; SOKOLOVA, T.P., tekhnicheskiy redaktor.

[Mechanical engineer's manual; in 6 volumes] Spravochnik mashinostroitelia; v shesti tomakh. Izd.2-e, ispr. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, Vol.3, 1955. 563 p.  
(Mechanical engineering) (MLRA 8:12)

PONOMAREV, S.D., doktor tekhnicheskikh nauk, professor; BIDERMAN, V.L.; LIKHAREV, K.K.; MAKUSHIN, V.M.; MALININ, N.N.; FEODOS'YEV, V.I.; POPOVA, G.M., tekhnicheskiy redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor

[Calculations of the strength of materials in machine manufacture]  
Raschety na prochnost' v mashinostroenii. Pod red. S.D.Ponomareva.  
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 1.  
[Theoretical principles and experimental methods. Calculations for  
structural rod elements under static load] Teoreticheskie osnovy i  
eksperimental'nye metody. Raschety sterzhnevykh elementov konstruk-  
tsii pri staticheskoi nagruzke. 1956. 884 p. (MLRA 10:3)  
(Strength of materials) (Elasticity)

8063I

sov/81-59-5-17733

*15.9300*Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 5, pp 560 - 561  
(USSR)AUTHORS: Biderman, V.L., Drozhzhin, P.Kh., Pugin, V.A., Shchaveleva, V.F.TITLE: The Experimental Investigation of Deformations Occurring in Parts  
of the Tread in a Pneumatic Tire

PERIODICAL: Tr. N.-i. in-ta shin. prom.-sti, 1957, Nr 3, pp 5 - 15

ABSTRACT: A method is described for measuring the deformations (D) occurring in parts of the tire (T) and some of the results of a study of D in the internal and external layers of the tread are submitted, depending on the factors of its construction and its operation conditions. The measuring of D is performed with a tensometer, which is a thin steel  $\square$ -shaped cramp; wire transducers are pasted onto the horizontal plate from both sides. The fastening and insertion of the tensometer into the tread part, which is being measured, is accomplished by means of needles soldered onto the cramp with rubber disks, vulcanized onto it. A holder is also soldered onto the cramp for fastening the transducer

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The Experimental Investigation of Deformations Occurring in Parts of the  
Tread in a Pneumatic Tire

onto the tread. The transducer is fed by a direct current. The electrical signal from the tensometer is amplified and fed to an oscillograph. In order to get a horizontal deflection of the beam of the latter a special scanning device is installed, which is a potentiometer, the brush of which rotates together with the tire, whereby the deflection of the beam of the oscillograph is proportional to the angle of T rotation. D was measured at various velocities of the rolling up to 50 - 60 km/hr. When the tread is rolling along a smooth surface the zone of the D elements of T spreads to 1/3 of the T circumference. The curves of change of the meridional (profile) and circumferential D, in the internal as well as the external layers of the tread, have the shape of three extrema, in which case the circumferential and meridional D have different signs in all the points. In the meridional direction the maximum D take place at a distance of 110 - 120 mm from the crown and at the same distance in the circumferential direction, whereby the value of D reaches 5 - 6%. The threads of the cord near the crown are subjected to D of 1.0 - 1.5% above the initial stretching. The value of D of the threads is 1.0 - 1.5% above the initial stretching.

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The Experimental Investigation of Deformations Occurring in Parts of the Tread in a Pneumatic Tire

lengthening (2%), which depends on the internal pressure in T. On the side part the threads operate under compression, the greatest D (1.8 - 2.2%) of which occur in the cross-section located at 110 - 120 mm from the crown. D of the rubber in the layer (30 - 40%) are mainly shear D. Additional dynamic D of the threads of the cord along the crown practically do not depend on the internal pressure. Compression D of the threads on the side within a pressure range of 2 - 5 kg/cm<sup>2</sup> do not depend either on the internal pressure. With a drop in the pressure to < 2 kg/cm<sup>2</sup> the compression D increase. At a constant deflection the D of the rubber in the layer actually do not change due to internal pressure. The cord D along the crown do not depend on the deflection of T when the latter changes from 10 - 40 mm. With an increase in the deflection the compression D of the threads on the side increase. The shear D of the rubber in the layer also increase with an increase in the deflection. A change in the rolling velocity of T from 3 to 50 km/hr has no significant effect on the rubber and cord D. Pressing obstacles into T, D of the threads increase approximately in proportion to

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The Experimental Investigation of Deformation Occurring in Parts of the  
Tread in a Pneumatic Tire

the magnitude of the impression and decrease with a drop of the internal pressure in T. With an increase in the number of layers of T, the thread and rubber D in the layers increase. A change in the cut angle of the chord threads ( $42, 52, 60^\circ$ ) has little effect on the cord thread D. When a concentrated load acts on T, an increase in the angle of the thread causes some increase in their D. With an increase in the thread angle from  $42$  to  $60^\circ$  the rigidity of the carcass in the circumferential direction increases, and in the meridional direction decreases, whereby the D of the layers in the circumferential direction decrease by 25 - 30%, and in the meridional direction increase by 40 - 50%. With an increase in the rigidity of the chord, the thread D decrease. The conditions of the cord D during rolling of T are close to the given conditions of the D cycle work. The shear D of the rubber in the layers do not depend on the type of the chord. When a concentrated load acts, the thread D in the tread made of hard rubber is greater than in soft one. The type of the profile and its depth have no

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The Experimental Investigation of Deformation Occurring in Parts of the  
Tread in a Pneumatic Tire

significant effect on the cord and rubber D when T rolls along a smooth path.  
When a concentrated load acts upon T, the profile type, its depths and the  
thickness of the sub-groove layer have an effect on the cord thread D.

M. Khromov

Card 5/5

SOV/124-58-11-13442  
Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 212 (USSR)

AUTHOR: Biderman, V. L.

TITLE: Calculation of the Deformations Occurring in Tire Tubes (Raschet deformatsiy v kamerakh pnevmaticheskikh shin)

PERIODICAL: Tr. N.-i. in-ta shin. prom-sti, 1957, Nr 3, pp 76-105

ABSTRACT: The deformation and stresses occurring in a tire tube during its inflation are determined. Prior to inflation the tube forms a toroidal-shaped vessel. Upon inflation it assumes the shape of a body of revolution having a meridian-arc profile corresponding to the profile of the tire casing and the rim. Equilibrium and deformation equations are set up and solved numerically by the method of successive approximations. The experimental methodology is not described. The conditions leading to the formation of folds in the tube during the mounting of the tire are established. The conditions thus found are confirmed by experiment. Simplified calculation methods are provided for tubes having dimensions that are characteristic for truck tires.

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V. I. Feodos'yev

*Biderman, I. F.*  
USSR/General Problems. Methodology. History. Scientific A  
Institutions and Conferences. Teaching. Problems  
of Bibliography and Scientific Documentation

Abs Jour : Ref Zhur-Khimiya, No 4, 1958, 10235

Author : V. F. Yevstratov, K. D. Bebris, V. L. Biderman,  
G. N. Vriyko, L. V. Desidley, A. N. Zherevtsov,  
F. I. Yashunskaya

Inst : Not given  
Title : Development of the Tire Industry in the USSR  
in 40 Years

Orig Pub : Kauchuk i rezina, 1957, No 10, 13-26  
Bibliography 25-titles

Abstract : No abstract

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Bind K N D V  
391. Tyre with metal cord. V. L. BIEBRMAN,  
A. P. BOGACHEVSKI and V. F. SUSHCHEVSKY. Zhurnal  
Resina, 1957, 18, No. 3, 19-22. This is a survey  
of non-Russian projects and achievements, with  
particular reference to Michelin tyres which have  
been tested and described in detail in the  
Nauchno-tekhnicheskaya Literatura.

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24(0): 25(2) PHASE I BOOK EXPLOITATION 50/2037

**Бауман. Vysshaya tekhnicheskaya uchil'schich knigi M.E. Baumana**  
**Nauchnye i prochnost' v mashinostroyenii: [sbornik] Design for**  
**Strength in Mechanical Engineering; Collection of Articles]**  
**Strength in Mechanical Engineering; Collection of Articles]**  
**Novosibirsk, 1958.**  
**244 p. (Series: Its: [Trudy] 89)**  
**Ed.: G.I. Kholodov, Doctor of Technical Sciences, Professor,**  
**Boarded Worker in Science and Technology; Ed.: B.I. Model; Managing Ed.: Vorozhin,**  
**N.P. Chernyshova; Technical Building (Mashgiz); S.I. Golovin,**  
**Literature on Heavy Machine Building (Mashgiz); S.I. Golovin,**  
**Engineer.**

**PURPOSE:** This collection of articles is intended for engineering staff in the machine-building industry and may be useful to scientific workers and senior students or mechanical engineering viruses.

**COVERAGE:** The articles cover the graphanalytical method of designing circular symmetrically loaded reinforced plates, methods of designing rotating heated disks for traverse bending, and calculations of preloaded Belleville springs. Also discussed are differentiations for deformation of rubber-cord shells and calculation of theory of failure of rubber-cord hose, and stability problems of elastic cylindrical shells. Results of experimental investigation of strength and ductility of constructional steels and other materials are presented. Several articles are devoted to problems of vibrations in machinery. There are 78 references; 71 Soviet, 2 English, and 1 French.

**Aldutov, N.A., Candidate of Technical Sciences; V.P. Sokolov**  
**Determining the Lower Critical Pressure for an Elastic Cylindrical Shell and Behavior of the Shell Under Buckling** 95  
 This article presents results of work done in 1950 with the problem is claimed to be new and simple. Solutions of design are presented. A comparison is made with examples obtained by methods of other authors.

**Lapin, A.A., Candidate of Technical Sciences, Docent, Investigator**  
**of Failure of Rubber-cord Cylindrical Shells** 111  
 This article presents results of work done in 1950 with the article presents results of work done in 1950 with the problem is claimed to be new and simple. The author finds conditions for most rational configuration of T-, L-, and L-shaped sections for castings or weldments designed for bending.

**Budar'man, V.V., Candidate of Technical Sciences. Differential Equations for Deformation of Rubber-cord Shells of Rotation** 119  
 The article investigates General cases of deformation in rubber hoses, tires, shock absorbers, etc. subjected to internal pressure. A method is presented for analyzing a equilibrium of a rubber-cord flexible hose under internal pressure are analyzed.

**Budar'man, V.V., Candidate of Technical Sciences. Differential Equations for Deformation of Rubber-cord Shells of Rotation** 119  
 The article presents results of work done in 1950 with the article presents results of work done in 1950 with the problem is claimed to be new and simple. The author finds conditions for most rational configuration of T-, L-, and L-shaped sections for castings or weldments designed for bending.

**Likharev, K.K., Candidate of Technical Sciences, Docent.**  
**Comparison of Characteristics of Materials Under Uniaxial Tension and Compression** 147  
 The article is based on experimental data obtained at the Department of Strength of Materials at MFTU [Novosibirsk Higher Technical School Imeni M.E. Baumana]. The author points out the necessity of establishing a method in order to testing of materials in tension and compression in order to correct some not too well-founded views on the characteristics of material. Many stress-strain diagrams and tables showing the mechanical properties of several materials are included.

BIDERMAN, V.L.

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b.3

PHASE I BOOK EXPLOITATION

SOV/1377

Raschety na prochnost'; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey, vyp. 3. (Calculations for Strength; Theoretical and Experimental Research on the Strength of Elements Used in Machine Construction. Collection of Articles, Vol. 3) Moscow, Mashgiz, 1958. 355 p. 4,000 copies printed.

Ed.: Tarabasov, N.D., Doctor of Technical Sciences; Editorial Board: Tikhomirov, Ye.N., Honored Worker of the RSFSR in Science and Technology, Professor (Chairman); Serensen, S.V., Active Member, Ukrainian SSR Academy of Sciences, Doctor of Technical Sciences, Professor; Glushkov, G.S., Doctor of Technical Sciences, Professor; Ponomarev, S.D., Doctor of Technical Sciences, Professor; Sokolov, S.N., Doctor of Technical Sciences, Professor; Tarabasov, N.D., Professor of Technical Sciences, Professor; and Makushin, V.M., Candidate of Technical Sciences, Docent (Secretary); Tech. Ed.: Tikhanov, A.Ya.; Managing Ed. Ponomareva, K.A., Engineer.

Card 1/5

Calculations for Strength (Cont.)

SOV/1377

PURPOSE: This collection of articles is intended for engineers and designers working in the field of machine construction, for research fellows, and scientific workers.

COVERAGE: The collection is an inter-vuz publication of transactions concerning strength problems. It contains original reports on calculations for a number of structures used in machine building and their components. Considerations are given to calculations of the columns of hydraulic presses, the nonlinear theory of spiral springs, problems in the calculation of rubber components, theoretical and experimental investigations of circular plates of constant and variable stiffness, investigations of conical shells and of stressed assemblies of machine components. Calculations in the elasto-plastic domain are represented by an investigation of forced fits of discs and the creep of operating turbine blades. Problems of contact in the case of impact and the stability theory of elastic systems "in general terms" are considered. There are 114 references, 99 of which are Soviet, 9 English, 4 German, 1 French, 1 Polish.

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Calculations for Strength (Cont.)

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Calculations for Strength (Cont.)

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AVAILABLE: Library of Congress

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BIDERMAN, V.L.

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PHASE I BOOK EXPLOITATION

SOV/1376

Raschety na prochnost'; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey, vyp. 2. (Calculations for Strength; Theoretical and Experimental Research on the Strength of Elements Used in Machine Construction. Collection of Articles, Vol. 2) Moscow, Mashgiz, 1958. 360 p. 4,000 copies printed.

Editorial Board: Tikhomirov, Ye.N., Honored Worker of the RSFSR in Science and Technology, Professor; Serensen, S.V., Active Member, Ukrainian SSR Academy of Sciences, Doctor of Technical Sciences, Professor; Glushkov, Doctor of Technical Sciences, Professor; Ponomarev, S.D., Doctor of Technical Sciences, Professor; Tarabasov, N.D., Doctor of Technical Sciences, Professor; Makushin, Professor; V.M., Candidate of Technical Sciences, Docent; Tech. Ed.: Tikhonov, A.Ya.; Managing Ed. for Literature on General Technical and Transport Machine Building (Mashgiz): Ponomareva, K.A., Engineer.

PURPOSE: This collection is intended for engineers working in the machine construction industry, and also for engineering and technical workers in planning organizations and scientific-research institutes.

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## Calculations for Strength (Cont.)

SOV/1376

COVERAGE: The collection is an inter-vuz publication of transciations on strength problems. It presents reports on problems of engineering calculations of construction elements for strength and stiffness in the elastic and elastoplastic domains, and articles on stability of a stressed state, and under dynamic loads. There are 105 references, 86 of which are Soviet, 11 English, 7 German, and 1 French.

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